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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. | | |
|---|----------------|----------------------|-------------------------|------------------|--|--|
| 09/875,209 | 06/04/2001 | Neal A. Brown | 10431-005001 | 6091 | | |
| 7: | 590 07/11/2003 | | | | | |
| CHRISTOPHER S. MARCHESE Fish & Richardson P.C. 4350 La Jolla Village Drive, Suite 500 | | | EXAMINER | | | |
| | | | SINGH, SUNIL | | | |
| San Diego, CA | 92122 | | ART UNIT | PAPER NUMBER | | |
| | | | 3673 | | | |
| | | | DATE MAILED: 07/11/2003 | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | | 09/875,209 | Applicant(s) | Brown e | et al. | f | | |
|---|---|---|--|---|-----------------|--------|--|--|
| | | Examiner Sunil Singh | | Art Unit 3673 | | | | |
| | The MAILING DATE of this communication appears | on the cover sheet wi | th the corres | pondence addr | ess | | | |
| A SH THE I - Extens mailing - If the I - If NO I | for Reply ORTENED STATUTORY PERIOD FOR REPLY IS SET MAILING DATE OF THIS COMMUNICATION. ions of time may be available under the provisions of 37 CFR 1.136 (a). In date of this communication. period for reply specified above is less than thirty (30) days, a reply within to period for reply is specified above, the maximum statutory period will apply | no event, however, may a rep he statutory minimum of thirty and will expire SIX (6) MONTH | ly be timely filed (30) days will be S from the mailin | after SIX (6) MONT considered timely. g date of this comm | | | | |
| - Any re | to reply within the set or extended period for reply will, by statute, cause t ply received by the Office later than three months after the mailing date of patent term adjustment. See 37 CFR 1.704(b). | | | | | | | |
| Status 1) | Responsive to communication(s) filed on | | | | | _• | | |
| 2a) 🗌 | This action is FINAL . 2b) 💢 This ac | tion is non-final. | | | | | | |
| 3) 🗆 | Since this application is in condition for allowance closed in accordance with the practice under Ex pa | • | | | ne merits is | | | |
| | tion of Claims | | | | | | | |
| 4) 💢 | Claim(s) <u>1-49</u> | | is/are | pending in th | e application. | | | |
| 4 | a) Of the above, claim(s) | | is/ard | e withdrawn f | rom considera | tion. | | |
| 5) 🗆 | Claim(s) | | | is/are allowed | | | | |
| 6) 💢 | Claim(s) 1-8, 10-25, 28-32, and 34-49 | | is/are rejected. | | | | | |
| 7) 💢 | Claim(s) 9, 26, 27, and 33 | | | | | | | |
| 8) 🗌 | Claims | are subje | ct to restric | tion and/or ele | ection requiren | nent. | | |
| Applica | tion Papers | | | | | | | |
| 9) 💢 | The specification is objected to by the Examiner. | | | | | | | |
| 10)🗶 | The drawing(s) filed on <u>Oct 5, 2001</u> is/are a) \square accepted or b) \square objected to by the Examiner. | | | | | | | |
| | Applicant may not request that any objection to the o | - | | | | | | |
| 11) | The proposed drawing correction filed on | is: a) 🗌 | approved | b) disappro | ved by the Exa | aminer | | |
| _ | If approved, corrected drawings are required in reply | | | | | | | |
| 12)∟ | The oath or declaration is objected to by the Exam | iner. | | | | | | |
| | under 35 U.S.C. §§ 119 and 120 | rianiaadar 25 II C. | C 5 440(-) | (4) (4) | | | | |
| | Acknowledgement is made of a claim for foreign p $A(b) \square Some * c) \square None of:$ | riority under 35 U.S. | J. § 119(a)· | -(a) or (t). | | | | |
| | 1. Certified copies of the priority documents have | va haan ransiyad | | | | | | |
| | Certified copies of the priority documents have | | nolication N | 0 | | | | |
| | 3. ☐ Copies of the certified copies of the priority d | | | | Stage | | | |
| | application from the International Bure ee the attached detailed Office action for a list of the | au (PCT Rule 17.2(a) |). | tins reations. | Stage | | | |
| 14)💢 | Acknowledgement is made of a claim for domestic | priority under 35 U.S | S.C. § 119(| e). | | | | |
| a) 🗆 | | • • | | | | | | |
| 15) | Acknowledgement is made of a claim for domestic | priority under 35 U.S | S.C. §§ 120 | and/or 121. | | | | |
| Attachm | ent(s) | | | | | | | |

1) X Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s).

6) Other:

4) Interview Summary (PTO-413) Paper No(s).

5) Notice of Informal Patent Application (PTO-152)

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DETAILED ACTION

Inventorship

1. In view of the papers filed 4/28/03, it has been found that this nonprovisional application, as filed, through error and without deceptive intent, improperly set forth the inventorship, and accordingly, this application has been corrected in compliance with 37 CFR 1.48(a). The inventorship of this application has been changed by the addition of Victor G. Grinius and Cam M. Shaar as inventors.

The application will be forwarded to the Office of Initial Patent Examination (OIPE) for issuance of a corrected filing receipt, and correction of the file jacket and PTO PALM data to reflect the inventorship as corrected.

Drawings

2. Figures 1A and 1B should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claim 49 is objected to because of the following informalities: claim 49 appears as if it should depend from claim 46. Appropriate correction is required.

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Specification

4. The abstract of the disclosure is objected to because "is disclosed" should be omitted.

Correction is required. See MPEP § 608.01(b).

5. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns,"

"The disclosure defined by this invention," "The disclosure describes," etc.

Double Patenting

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed.

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Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321© may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

- 7. Claims 1-4, 10, 13-20, 22-24, 34, 36, 39 and 42-49 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5 of U.S. Patent No. 6,148,751 in view of Shu et al.
- 8. Claims 5-8, 11, 35, 37, 40-41 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5 of U.S. Patent No. 6,148,751 in view of Shu et al. and Smith.
- 9. Claims 5-6, 8, 11-12, 35, 37-38, 40-41 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5 of U.S. Patent No. 6,148,751 in view of Shu et al. and Brahtz.

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- 10. Claim 21 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5 of U.S. Patent No. 6,148,751 in view of Shu et al. and Purcell, Jr. or Payne.
- 11. Claims 25, 28, 30-32 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5 of U.S. Patent No. 6,148,751 in view of Shu et al. and Watson.
- 12. Claim 29 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5 of U.S. Patent No. 6,148,751 in view of Shu et al. and Watson and Smith or Brahtz.
- 13. Claims 1-4, 10, 13-20, 22-24, 34, 36, 39 and 42-49 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-35 of U.S. Patent No.6,349,664 in view of Shu et al.
- 14. Claims 5-8, 11, 35, 37, 40-41 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-35 of U.S. Patent No. 6,349,664 in view of Shu et al. and Smith.
- 15. Claims 5-6, 8, 11-12, 35, 37-38, 40-41 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-35 of U.S. Patent No. 6,349,664 in view of Shu et al. and Brahtz.

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16. Claim 21 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-35 of U.S. Patent No.6,349,664 in view of Shu et al. and Purcell, Jr. or Payne.

- 17. Claims 25, 28, 30-32 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-35 of U.S. Patent No. 6,349,664 in view of Shu et al. and Watson.
- 18. Claim 29 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-35 of U.S. Patent No.6,349,664 in view of Shu et al. and Watson and Smith or Brahtz.

Claim Rejections - 35 USC § 102

19. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (e) the invention was described in-
- (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
- (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).
- 20. Claims 1-4, 10, 13-20, 22-24, 34, 36, 39, 42-49 are rejected under 35 U.S.C. 102(e) as being anticipated by Shu et al. (US 6551029).

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Shu et al. discloses a marine riser comprising a riser pipe (105), an annular sheath (see Figs. 2b- 4) surrounding the riser pipe and at least one pair of nozzles (108). System (101) for pumping water through the conduit. Independently and collectively selectable to discharge water (see col. 6 lines 1-3). Duct/pipes (107, see Fig.3). Tail jet (see Fig. 7, col. 6 lines 13-19). With regards to claim 24, see attached marked up Figure 4.

Claim Rejections - 35 USC § 103

- 21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 22. Claims 5-8, 11, 35, 37, 40=41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shu et al. in view of Smith (US 3894504).

Shu et al. discloses the invention substantially as claimed. However, Shu et al. is silent about having a rotatable sheath which includes a ring gear, pinion gear and gear motor. Smith teaches a rotatable sheath (24) which includes a ring gear (40), pinion gear (50) and gear motor (42). It would have been considered obvious to one of ordinary skill in the art to modify Shu et al. to include the rotating means as taught by Smith in order to reduce vortex induced vibration.

23. Claims 5-6, 8, 11-12, 35, 37-38, 40-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shu et al. in view of Brahtz (US 3762352).

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Shu et al. discloses the invention substantially as claimed. However, Shu et al. is silent about having a rotatable sheath which includes a ring gear, gear motor and controller. Brahtz teaches a rotatable sheath (12) which includes a ring gear (14), gear motor (20) and controller (18). It would have been considered obvious to one of ordinary skill in the art to modify Shu et al. to include the rotating means as taught by Brahtz in order to reduce vortex induced vibration.

24. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shu et al. in view of Purcell, Jr. or Payne (US 3614032, 3763810).

Shu et al. discloses the invention substantially as claimed. However, Shu et al. is silent about having a retractable tail. Purcell, Jr. and Payne both teach a retractable tail (42,199). It would have been considered obvious to one of ordinary skill in the art to modify Shu et al. to make his tail retractable as taught by either Purcell, Jr. or Payne in order to avoid damage to the tail when not in use.

25. Claims 25, 28, 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shu et al. in view of Watson (US 4300855).

Shu et al. discloses the invention substantially as claimed. However, Shu et al. is silent about having a telescoping sheath. Watson teaches a telescoping sheath (see Figs. 5, 10). It would have been considered obvious to one of ordinary skill in the art to modify Shu et al. by making his sheath telescoping as taught by Watson in order to be able to use the marine riser in both deep and shallow waters.

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With regards to claim 30, the structure is rotatable since the word rotatable means capable

of rotating.

With regards to claim 31, the diameter of the cylindrical sections decreases (see Figs. 5

and 10 of Watson).

26. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shu et al. in view

of Watson as applied to claim 25 above, and further in view of Smith '504 or Brahtz '352.

Shu et al. (once modified) discloses the invention substantially as claimed. However, the

(once modified) Shu et al. is silent about having a rotatable sheath/cylindrical section. Smith and

Brahtz both teach rotatable sheath/cylindrical sections (24, 12 respectively). It would have been

considered obvious to one of ordinary skill in the art to further modify the (once modified) Shu et

al. to include the rotating means as taught by either Smith or Brahtz in order to reduce vortex

induced vibration.

Allowable Subject Matter

27. Claims 9, 26-27 and 33 are objected to as being dependent upon a rejected base claim, but

would be allowable if rewritten in independent form including all of the limitations of the base

claim and any intervening claims.

Conclusion

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28. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Miller et al. '617 and Stanford '882 both teach means for reducing VIV.

29. Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Sunil Singh whose telephone number is (703) 308-4024. The examiner can

normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Heather Shackelford, can be reached on (703) 308-2978. The fax phone number for the

organization where this application or proceeding is assigned is (703) 305-7687.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is (703) 308-2168.

Sunil Singh

Patent Examiner

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SS

7/9/03